

REMARKS

The undersigned notes with appreciation that the applicant's claim of foreign priority has been acknowledged. The record does not indicate that the drawings have been approved, and it is respectfully requested that indication of the same be provided in the next office action.

The Abstract has been amended as a matter of form. The revised Abstract no longer employs language commonly associated with patent claims. Typographical and grammatical errors have been corrected in the patent specification. No new matter has been added.

Claims 1-8 have been amended for matters of form to eliminate reference to numeric identifiers and to assure antecedent basis in the dependent claims. In addition, claim 1 has been amended to require that on both sides of said at least one solid annular section there are annular sections having the passage gaps. This is shown in each of the Drawing Figures of the patent application, and the application makes clear that concentric sections (5) are solid and lack passages (see, e.g., paragraph [0018]). Furthermore, claim 1 has been amended to require that the at least one solid annular section is sufficiently sized to dissipate heat in the concentric region within the flow cross section. Support for this can be found in paragraph [0008] of the patent application. The application now includes claims 1-8.

Claims 1-8 have been rejected for non-statutory obviousness-type double patenting over U.S. Patent 7,241,137 to Leinemann (the inventor of the present application and Leinemann GmbH being the owner of U.S. Patent 7,241,137 and the present application). This rejection is traversed.

U.S. Patent 7,241,137 to Leinemann is drawn to a flame arrestor having a disk structure comprising multiple concentric rings having two types of gas passages, wide (17) and narrow (18) and which are arranged in an alternate pattern in the radial direction (see Abstract, claim 1, and column 3, lines 56-60). The aim of this arrangement is that the narrower gas passages cause a higher flow velocity which results in increased cooling compared with the wider gas passages which guarantee a sufficient flow volume due to a smaller flow resistance but cause a lower flow velocity, thereby increasing the temperature. U.S. Patent 7,241,137

thus relies on proper matching between the two types of gaps which have different sized passages.

In contrast, the claimed invention is related to a permanent fireproof flame guard (often referred to as an “endurance burning flame arrester”) claps gaps for the gas flow which are, in a radial direction, interrupted by at least one solid annular section having no gaps. A section having no gaps is quite different from a section having “smaller” gaps which cause higher flow velocity.

Thus, it should be clear that the ideas behind U.S. Patent 7,241,137 and the present application are completely different because in a solid annular section without any gaps there can be no high flow velocity. In contrast to U.S. Patent 7,241,137, the section having no gaps is used for cooling where the cooling effect is caused by the higher thermal conductivity of the material forming the annular section without gaps, e.g., solid metal. As such, the rejection for nonstatutory obviousness should be withdrawn.

Claims 1- 8 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 6,179,608 to Kraemer et al. This rejection is traversed.

As is shown in Figures 1, 3, 5, 8, and 9 of Kraemer there is shown a flame arrester formed by spiral or concentric windings of a flat strip together with a corrugated strip.

Claim 1 has been amended to clarify that at least one concentric solid annular section. The core 60 in Kraemer is not annular. Dependent claim 3 further highlights this distinction as it requires a centrally arranged core as a separate element.

Furthermore, claim 1 requires that the solid annular section is sufficiently sized to dissipate heat in the concentric region within the flow cross section. The flat strip of Kraemer does not fulfill this requirement.

The present invention is related to an endurance burning flame arrester characterized in its flow cross section being subdivided in a plurality of concentric annular sections arranged alternately without (solid) and with a large number of passage gaps. Kraemer discloses a swirl velocity component with an integral flashback arresting capability which is made of two pieces i.e. multiple channel monoliths which can be configured differently and are made as an assembly or as two parts with a gap between both. These structural features make the Kraemer's

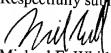
device different from the claimed device. Further, nowhere is the flow cross section of the Kraemer's device (Fig. 1 and 3) shown to be configured with at least one solid annular section without passage gaps on both sides of which are annular sections having passage gaps as is required in claim 1. For this reason, claim 1 and all of its dependent claims are not anticipated by Kraemer. In addition, with reference to claim 2, it is erroneous to conclude Kraemer's device shows the cross sectional area with the passage gaps being greater than the cross-sectional area without passage gaps since nowhere in Kraemer is there shown annular section without the passage gaps. Similarly with respect to claims 5, since Kraemer lacks an annular section without passage gaps, it also lacks a plurality of annular sections without passage gaps. With respect to claim 3, Kraemer does not show both a solid core and an annular section with no passage gaps. For these and other reasons, the rejection of claims 1-8 should now be withdrawn.

In view of the foregoing, it is respectfully requested that the application be reconsidered, that claims 1-8 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

A provisional petition is hereby made for any extension of time necessary for the continued pendency during the life of this application. Please charge any fees for such provisional petition and any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,


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